PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY							
То:	1	PCT					
ITOH TADAHIKO	21224						
		TTEN OPINION OF T					
32ND FLOOR, YEBISU GARDEN	INTERNATION	ONAL SEARCHING A	UIHORIIY				
20-3, EBISU 4-CHOME,	PLACE TOWER, 20-3, EBISU 4-CHOME, (PCT Rule 43bis.1)						
SHIBUYA-KU, TOKYO							
1506032 JAPAN	Date of mailing		·				
	(day/month/year)	20. 7. 200	04				
Applicant's or agent's file reference	To the reference FOR FURTHER ACTION See paragraph 2 below						
International application No. International filing date	(day/month/year)	Priority date (day/month/y	ear)				
PCT/JP2004/005756 22.04	.2004	28.04.	2003				
International Patent Classification (IPC) or both national classific	ation and IPC						
Int.Cl 7 H02M 3/155							
Applicant							
RICOH COMPANY, LTD.	····						
This opinion contains indications relating to the following ite	ems:						
Box No. I Basis of the opinion							
Box No. II Priority							
Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability							
Box No. IV Lack of unity of invention							
Box No. V Reasoned statement under Rule 43bis.1 citations and explanations supporting							
Box No. VI Certain documents cited							
Box No. VII Certain defects in the international ap							
Box No. VIII Certain observations on the international application							
2. FURTHER ACTION							
If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.							
If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.							
For further options, see Form PCT/ISA/220.							
3. For further details, see notes to Form PCT/ISA/220.							
3. 101, tartiol details, see notes to 101111 C1/10/0220.							
Name and mailing address of the ISA/JP	Authorized officer		3V 2917				
Japan Patent Office	SAKURADA Masaki						
3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Telephone No. +81-3-3581-1101 Ext. 3356						

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/005756

Box No. I	Basis of the opinion
1. With re	egard to the language, this opinion has been established on the basis of the international application in the language in
	it was filed, unless otherwise indicated under this item.
	This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under
Ī	Rules 12.3 and 23.1(b)).
	egard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the linvention, this opinion has been established on the basis of:
a. type	of material
	a sequence listing
片	table(s) related to the sequence listing
اـــا	acia(s) touted to the sequence houng
b. fom	nat of material
	in written format
同	in computer readable form
c. time	of filing/furnishing
	contained in the international application as filed.
	filed together with the international application in computer readable form.
	furnished subsequently to this Authority for the purposes of search.
	In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Addit	ional comments:
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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/JP2004/ 005756

DUX			orting such statement		
1.	Statement				
	Novelty (N)	Claims	1-14	YES	
		Claims		NO	
	Inventive step (IS)	Claims		YES	
		Claims	1-14	NO	
	Industrial applicability (IA)	Claims	1-14	YES	
		Claims		NO	

2. Citations and explanations

<The following document has been considered for the purpose of this report:>

- D1 = JP 2000-166223 A(MOTOROLA INC.) 16.06.2000, line 46, column 4 to line 45, column 6, Figs 5-9
- D2 = JP 2003-70247 A(FUJI ELECTLIC CO.,LTD.) 07.03.2003, line 27, column 3 to line 21, column 5, Fig 6
- D3 = JP 5-275985 A(SANYO ELECTRIC CO.,LTD.) 22.10.1993, line 18, column 2 to line 17, column 3, Fig 5
- D4 = JP 2001-86740 A(TOSHIBA CORP.) 30.03.2001, whole document
- D5 = US 5914591 A(MATSUSHITA ELECTRIC INDUSTRIAL CO.,LTD.) 22.06.1999, whole document & JP 10-243642 A & JP 10-262365 A & JP 10-262367 A & CN 1195920 A
- D6 = EP 1146629 A2(LINEAR TECHNOLOGY CORP.) 17.10.2001, whole document & JP 2001-314076 A & US 6166527 A

The subject matter of claim 1,7,13,14 does not involve an inventive step over D1,D2, D3, for the following reasons.

Technical features the triangle wave generator disclosed in D1 and the triangle wave generator disclosed in D2 respectively, have the same function and are related to similar technical fields. Therefore, the skilled person in the art would easily conceive the idea of employing the feature the triangle wave generator in D2 to substitute the feature the triangle wave generator disclosed in D1.

Technical features the level shift circuit disclosed in D1 and the triangle wave generator disclosed in D3 respectively, have the same function and are related to similar technical fields. Therefore, the skilled person in the art would easily conceive the idea of employing the feature the triangle wave generator in D3 to substitute the feature the level shift circuit disclosed in D1.

Claims 2-6 are dependent on claim 1 and as such also do not meet the requirements with respect to novelty and inventive step.

Claims 8-12 are dependent on claim 7 and as such also do not meet the requirements with respect to novelty and inventive step.